

# 2021 STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN



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# **INTRODUCTION**

The City of Bainbridge Island (City) is an owner and operator of a regulated small municipal separate storm sewer system (MS4). The MS4 discharges stormwater directly into streams and Puget Sound, which are Waters of the United States protected by the Federal Clean Water Act. Thus, the City's MS4 is regulated by State and Federal law under the National Pollutant Discharge Elimination System (NPDES).

NPDES is a permit-based water quality program implemented under the authority of the Federal Clean Water Act, administered by the <u>United States Environmental Protection Agency (EPA)</u>. The NPDES permit program is intended to reduce the discharge of pollution to Waters of the United States to protect and restore waters for beneficial uses such as swimming and fishing.

In Washington, NPDES permitting is regulated by <u>Washington State Department of Ecology (DOE)</u> under the authority of the EPA. DOE requires different NPDES permits for various types of businesses and industries that discharge stormwater, including quarry operations, construction, industrial, boatyards, animal feed operations, municipalities, fresh fruit packing, wineries, etc. For stormwater from municipal operations, the City of Bainbridge Island is required to obtain and comply with the <u>Western Washington Phase II Municipal Stormwater Permit</u> (the permit). The City's Public Works Department oversees and coordinates NPDES permit compliance for the City.



# **NPDES Phase II Municipal Stormwater Permit**

Under the NPDES Municipal Stormwater General Permit program in Washington State, cities and counties that own or operate an MS4 serving a population of more than 100,000 (based on the 1990 Census) are required to be covered under the Phase I permit. MS4 owners and operators serving populations of 1,000 to 100,000 (based on the 1990 Census) are required to be covered under the Phase II Permit. The City of Bainbridge Island is a Phase II jurisdiction.



The City must comply with all sections and general conditions of the permit. Principally, the permit requires the City to comply with standards to protect water quality, reduce the discharge of pollutants from the MS4 to the maximum extent practicable, and meet Washington State's All Known and Reasonable Treatment (AKART) requirements.

The permit provides general and prescriptive guidance for accomplishing permit compliance. Section 5 (S5) of the permit requires the City to develop and implement a Stormwater Management Program (SWMP) for its jurisdiction. Planned SWMP actions and activities for the upcoming year must be updated and documented annually as the Stormwater Management Program (SWMP) Plan, which is this document.

The SWMP Plan is submitted annually to DOE along with an annual report, a questionnaire regarding the City's compliance with the permit. Compliance as demonstrated by the annual report constitutes successful implementation of the previous year's SWMP Plan.

# S5 - STORMWATER MANAGEMENT PROGRAM (SWMP)

The City's Public Works Director is responsible for the overall development and implementation of the Stormwater Management Program (SWMP).

On behalf of the Director, the NPDES Permit Coordinator prepares the SWMP Plan and helps track and facilitate SWMP activities. Many staff across all City departments work to help to achieve SWMP goals and NPDES permit compliance. SWMP planning and activities costs are tracked, and Storm and Surface Water Fee revenues utilized.

The City of Bainbridge Island SWMP Plan is organized to address all SWMP requirements as outlined in Section 5 (S5) of the 2019-2024 Western Washington Phase II Municipal Stormwater Permit:

- S5.C.1 Stormwater Planning
- ➤ S5.C.2 Public Education and Outreach
- S5.C.3 Public Involvement and Participation
- S5.C.4 MS4 Mapping and Documentation
- ➤ S5.C.5 Illicit Discharge Detection and Elimination
- > S5.C.6 Controlling Runoff from New Development, Redevelopment and Construction Sites
- > S5.C.7 Operations and Maintenance
- S5.C.8 Source Control for Existing Development



# S5.C.1 – Stormwater Planning

Stormwater planning is a new requirement of the permit; whereas the City shall implement a Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

In 2020, the City convened an inter-disciplinary team to inform and assist in the development, progress, and influence of a Stormwater Planning program. The team will help consider and prepare reports on past, current, and future City stormwater management actions related to the previous and current permit, <a href="City">City</a>
<a href="Comprehensive Plan">Comprehensive Plan</a>, and other locally initiated or state-mandated long-range land use plans. This team will be instrumental in helping the City develop a Stormwater Management Action Plan by March 31, 2023 as required by the permit.

In relation to stormwater planning, the City is embarking on a Manzanita Watershed Assessment through a generous grant received from Washington Department of Ecology under the National Estuary Program (NEP) Stormwater Strategic Initiative. Manzanita watershed on Bainbridge Island presents an opportunity to design and implement stormwater improvements in accordance with landowner willingness, cost effectiveness, and greatest ecological lift. Other studies have recognized that this watershed has great potential to regain hydrologic balance and provide intact riparian habitat to support Puget Sound recovery. The project will assess how an 'out of basin mitigation' program could fund stormwater retrofit projects in the watershed. This study project has commenced in 2021 and is funded through 2022.

#### S5.C.2 - Public Education and Outreach

The City's stormwater public education and outreach program is designed to strive to build awareness and effect change that will ultimately reduce pollutants in stormwater and improve water quality in waters of the state.

The City continues to increase availability and accessibility of resources for information, services, and activities that may help people on Bainbridge Island better understand and cooperate in stormwater best management practices. In doing so, the City fosters a more knowledgeable and engaged community that is enthusiastic and willing to adopt more desirable attitudes and behaviors that decrease detrimental influences on water quality.

The next subsections detail the specific strategies and tactics the City will utilize to meet the three following minimum performance measure goals as outlined in the permit.

- > S5.C.2.a.i Build general awareness about methods to address and reduce impacts from stormwater runoff
- ➤ <u>S5.C.2.a.ii</u> <u>Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts</u>
- ➤ <u>S5.C.2.a.iii Create stewardship opportunities that encourages community engagement in addressing the</u> impacts from stormwater runoff

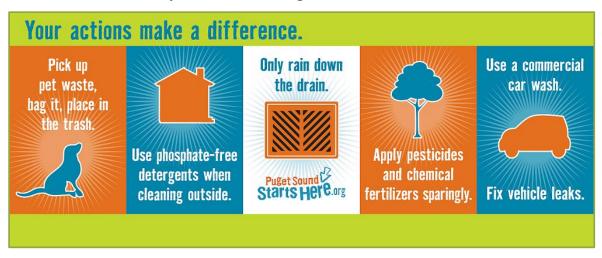


#### S5.C.2.a.i – General Awareness

The City works to improve awareness and involvement in the following subject areas with target audiences including the general public, businesses, engineers, contractors, developers, and land use planners.

- ✓ General impacts of stormwater on surface waters, including impacts from impervious surfaces.
- ✓ Low impact development (LID) principals and LID Best Management Practices (BMPs).
- ✓ Technical standards for stormwater site and erosion control plans.
- ✓ Stormwater treatment and flow control BMPs/facilities.

City remains dedicated to providing guidance and sharing information to help compel desired action from each target audience in the various subject areas surrounding stormwater.



The following is a list of opportunities and activities through which the City will be providing accessible information, resources, support, and services to promote knowledge, training, and stewardship for target audiences. Please contact the City if you want more detailed information for any of these items.

- o City of Bainbridge Island Stormwater Management Program (SWMP) Plan [this document]
- City stormwater management webpage: www.bainbridgewa.gov/stormwater
- City of Bainbridge Island Spill Hotline:
  - Telephone: 360-337-5777
  - Web: Kitsap 1 pollution.kitsapgov.com OR SeeClickFix
  - Email: help@kitsap1.com
- o Council, Ward, Committee, Hearing Examiner, and other public meetings
  - Meeting calendar
  - City Council
  - <u>Citizen Advisory Committees</u>



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- o City Water Resources Listserv and other "notify me" Listserv notifications sign up through this link
- o Information and education signs in parks, at road ends, on Mutt-Mitt Stations, and at stormwater flow control and treatment facilities



- Personal interactions (via telephone, email, and face-to-face)
- Letters and notices mailed or emailed to property owners as needed
- o Articles in COBI Connects publication and City Manager's Report weekly newsletter
- Social media outlets:
  - City of Bainbridge Island Facebook Page: www.facebook.com/citybainbridgeisland
  - City of Bainbridge Island Nextdoor Page: www.nextdoor.com/profile/30067103
  - City of Bainbridge Island SeeClickFix: <a href="https://en.seeclickfix.com/bainbridge-island">https://en.seeclickfix.com/bainbridge-island</a>



- o Participation with Bainbridge Island community groups and organizations, including:
  - Bainbridge Island Land Trust
  - Bainbridge Island Metro Park & Recreation District & Student Conservation Corps program
  - <u>Sustainable Bainbridge Community Groups</u>: Watershed Council, Weed Warriors, Zero Waste, Bainbridge Beach Naturalists
  - Association of Bainbridge Communities
  - Washington State University (WSU) Master Gardeners & Bainbridge Island Rain Garden Mentors
  - Friends of The Farms
  - Nature Nuts program (environmental educational program for young school-aged children)
- o Participation in regional stormwater groups, programs, and campaigns:

(Note: Some of these may continue to be affected into 2021 by the COVID-19 pandemic which caused many cancellations and postponements in 2020)

- <u>Stormwater Outreach For Regional Municipalities</u> (STORM) [regional coordination group]
- Puget Sound Starts Here (PSSH)
- Stormwater Action Monitoring (SAM) Stormwater Work Group
- West Sound Partners for Ecosystem Recovery West Central Puget Sound Local Integrating
  Organization and Lead Entity
- West Sound Stormwater Outreach Group (WSSOG) [regional coordination though an Interlocal Agreement]





- Collaboration with Kitsap County agencies and programs
  - <u>Kitsap Conservation District</u> (coordination also occurs through an Interlocal Agreement for agricultural assistance)
  - Kitsap County Solid Waste & Household Hazardous Waste Programs
  - Kitsap County Public Health District
  - Kitsap County Noxious Weed Board
- Scheduled and special events, such as:

(Note: Some of these may continue to be affected into 2021 by the COVID-19 pandemic which caused many cancellations and postponements in 2020)

- Annual Association of Bainbridge Communities Annual Conference (March)
- Bainbridge Island Rain Garden Mentors Workshop (February)



- Arbor Day (April)
- Annual <u>Kitsap Water Festival</u> (April)
- <u>Bainbridge Island Farmers Market</u> at Town Square (April December)
- Biannual <u>Drug Take Back Day</u> events (April & October)
- National Public Works Week (May)
- Annual <u>Puget Sound Starts Here</u> month (May)
- Annual Bainbridge Island Boater's Fair at Waterfront Park (June)



- Pollution Prevention Week (September)
- Bainbridge Island Watershed Council Annual spawning salmon monitoring (Fall)
- Bainbridge Island Beach Cleanup (September)
- Private and Capital development, redevelopment, and construction project planning and permitting procedures, including:
  - Planning Conferences and Consultations
  - <u>Site Assessment Review (SAR)</u> along with Stormwater Site Plan (SSP) review and approval
  - Pre and post construction meetings
  - Inspections and inspection reports for temporary and permanent stormwater best management practices (BMPs)
  - Operations and maintenance manuals
  - Declaration of Covenants for stormwater maintenance
  - Building inspections
- o Enforcement of State, County, and City standards, laws, and codes
- o Land Use Notices
- Business source control inspections and enforcement
- o Private stormwater facility inspections and enforcement
- o Response to reported or found spills
- o Response to reported or found drainage concerns
- Water Quality and Flow Monitoring Program (WQFMP)
- Mutt Mitt Station Program





- Visible operations and maintenance activities
- o City Hall common areas information displays with free takeaway items
- Web links to, or access to copies of, legal and technical guidance and manuals:
  - <u>City of Bainbridge Island Design and Construction Standards and Specification</u> (scheduled to be updated in 2021)
  - Bainbridge Island Municipal City Code
  - 2012 Stormwater Management Manual for Western Washington, as Amended in December
     2014
  - Low Impact Development (LID) guidance
- Storm drain "No Dumping" markers
- Drug Take Back Station in Police Station Lobby
- City Internships
- City of Bainbridge Island Green Team events and newsletters
- O Continuing the Natural Resource Management Team (NRMT) forum

# S5.C.2.a.ii - Behavior Change

Behavior change by people is necessary to help prevent further cause or contribution to adverse stormwater impacts. Behavior change is challenging and takes time.

To affect behavior change, the permit requires the City to develop and implement a community-based social marking campaign aimed to improve water quality by reducing pollutants in stormwater runoff through at least one target audience and one Best Management Practice (BMP).

As a member of the West Sound Stormwater Outreach Group (WSSOG), the City works collaboratively toward behavior change through regional group effort. In 2019, WSSOG hired the social marketing and public relations group C+C to assist with the development and implementation of a pilot behavior change social marketing campaign. The group decided to target residents and yard care techniques protective of water quality (aka natural yard care) as the BMP. The pilot campaign planned for 2020 was postponed due to the COVID-19 pandemic and is recommencing Spring in 2021.





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#### S5.C.2.a.iii - Stewardship

The City encourages Bainbridge Island residents to participate in stewardship by providing and advertising stewardship opportunities. The City partners with and/or promotes local and regional groups, programs, campaigns, and resources such as the following:

(Note: Some of these opportunities may continue to be affected into 2021 by the COVID-19 pandemic which caused many cancellations and postponements in 2020)

- Sustainable Bainbridge Community Groups: Watershed Council, Weed Warrior, Zero Waste, Bainbridge
   Beach Naturalists
  - Spawning salmon monitoring
  - Stream repairs and restoration
  - Beach monitoring
  - Beach cleanups
  - Waste monitoring and control at local events
  - Invasive and noxious species removal



- o City of Bainbridge Island Green Team waste reduction events
- City of Bainbridge Island Police <u>DEA National Prescription Drug Take Back</u> events in April and October, and 24-hour drug take back station available in Bainbridge Island Police Department lobby
- City of Bainbridge Island Pet Waste Collect Program through public Mutt Mitt stations and Mutt Mitt station Program for private properties
- West Sound Stormwater Outreach Group (WSSOG)
- Washington State University (WSU) Extension Programs:
  - Master Gardeners & Bainbridge Island Rain Garden Mentors Outreach and Assistance Program
  - Kitsap Stream Stewards Program
  - Kitsap Salmon Tours
- o Bainbridge Island Metro Park & Recreation District Student Conservation Corps Program
- Nature Nuts Kids environmental education program for young school-aged kids
- Kitsap Solid waste Household hazardous waste and other waste collection events
- Kitsap Noxious Weed Control Board Program Outreach and Assistance Program
- Kitsap Conservation District Outreach and Assistance Programs
- Washington Department of Fish and Wildlife





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# S5.C.3 – Public Involvement and Participation

The City encourages and values public engagement in the Stormwater Management Program (SWMP) and SWMP Plan because the public is both the primary investor and beneficiary of SWMP actions and outcomes. The SWMP is mostly funded through the <u>storm and surface water utility fee</u>, an annual fee paid by Bainbridge Island property owners.

The City facilitates ongoing public involvement and participation in the SWMP through various means and complies with the following permit requirements:

- ➤ <u>S5.C.3.a Create opportunities for the public, including overburdened communities, to participate in</u> decision-making processes involving development, implementation, and updates to the SWMP
- S5.C.3.b Post the City's SWMP Plan and permit Annual Report on the City of Bainbridge Island Website

#### S5.C.3.a - Create Opportunities

The City creates opportunities for the public, including overburdened communities, to participate in decision-making processes involving development, implementation, and updates to the SWMP primarily by soliciting and welcoming feedback on the SWMP Plan and SWMP actions.

The following are the many ways the City creates opportunities for the public to review and provide comment on SWMP policy, documents, actions, and activities:

- o Online:
  - City of Bainbridge island Water Resources listserv: <a href="https://www.bainbridgewa.gov/List.aspx">https://www.bainbridgewa.gov/List.aspx</a> (notification will be sent to listserv members when a new or updated SWMP is available)
  - City of Bainbridge Island website: <u>www.bainbridgewa.gov/stormwater</u>
  - City of Bainbridge Island Facebook Page: www.facebook.com/citybainbridgeisland
  - City of Bainbridge Island Nextdoor Page: <a href="www.nextdoor.com/profile/30067103">www.nextdoor.com/profile/30067103</a>
  - City of Bainbridge Island SeeClickFix: <a href="https://en.seeclickfix.com/bainbridge-island">https://en.seeclickfix.com/bainbridge-island</a>
- o City Council:
  - https://www.bainbridgewa.gov/217/City-Council
  - Meeting Calendar: https://www.bainbridgewa.gov/calendar.aspx?CID=14
- Citizen Advisory Committees
  - https://www.bainbridgewa.gov/222/City-Advisory-Groups
  - Meeting Calendar: https://www.bainbridgewa.gov/calendar.aspx?CID=14
- Email: Water Resources Work Group: <u>waterresources@bainbridgewa.gov</u>
- o Telephone: 206-842-2016



- Mail posted to: City of Bainbridge Island, Public Works-Engineering, Attn: NPDES Permit Coordinator,
   280 Madison Ave N, Bainbridge Island, WA 98110
- o In person at City Hall located at 280 Madison Ave N, Bainbridge Island, WA 98110

# S5.C.3.b - Post the Stormwater Management Program Plan on City's Website

The most current SWMP Plan is always accessible through the City website at <a href="https://www.bainbridgewa.gov/stormwater">www.bainbridgewa.gov/stormwater</a>. A hard copy of the SWMP Plan is available at City Hall at the Public Works front counter water resources library and a copy can be provided upon request. The City will make the 2021 SWMP Plan and 2020 Annual Report available to the public on the City of Bainbridge Island website, <a href="https://www.bainbridgewa.gov/stormwater">www.bainbridgewa.gov/stormwater</a>, no later than May 31, 2021, as required by the permit.

# S5.C.4 – Municipal Separate Storm Sewer System (MS4) Mapping and Documentation

The City continues to address ongoing and new municipal separate storm sewer system (MS4) mapping and documentation requirements pursuant to the permit and to inform and aid SWMP activities.

The MS4 map is a useful resource and necessary tool for City staff and the public as it helps inform development and redevelopment, permitting, operations and maintenance, illicit discharge detection and elimination, water quality monitoring, and stormwater planning. The MS4 map provides location and information datapoints for the following:

- ✓ MS4 outfalls and discharge points
- ✓ Receiving waters, other than groundwater
- ✓ Stormwater treatment and flow control BMPs/facilities owned or operated by the City
- ✓ Geographic areas served by the MS4 that do not discharge
  to stormwater or surface waters
- ✓ Tributary conveyances to all known outfalls and discharge points with a 24-inch nominal diameter or larger.
- ✓ Connections between the MS4 owned or operated by the City and other public entities
- ✓ All connections made to the MS4 authorized or allowed by the City after February 16, 2007.

Mapping is done electronically through Geographic Information System (GIS) computer software and is available upon request to Department of Ecology, federally recognized Indian Tribes, municipalities, and other Permittees.





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# S5.C.5 – Illicit Discharge Detection and Elimination

The NPDES permit and the City's SWMP fundamentally aim to prevent and address water pollution and protect water quality for humans, animals, and the environment. The City's Illicit discharge detection and elimination (IDDE) program aids this intention and is designed to effectively prevent, detect, characterize, trace, and eliminate spills, illicit connections, and illicit discharges into the municipal separate storm sewer system (MS4) to stop pollutants from reaching receiving waters.

The City's IDDE program addresses the following minimum performance measures outlined in the permit:

- S5.C.5.a Procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges when they are suspected or identified
- S5.C.5.b Informing public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste
- ➤ S5.C.5.c Illicit Discharge Ordinance
- S5.C.5.d Program to detect and identity non-stormwater discharges and illicit connections, spills, and other illicit discharges when they are suspected or identified into the MS4
- S5.C.5.e Program to address non-stormwater discharges and illicit connections into the MS4
- ➤ <u>S5.C.5.f Train staff responsible for identification, investigation, termination, cleanup, and reporting of illicit</u> discharges, including spills and illicit connections, to conduct these activities
- S5.C.5.g Recordkeeping of all activities conducted to comply with this permit section

#### S5.C.5.a - Reporting Procedures for IDDE

The City's IDDE program includes procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges when they are suspected or identified. Procedures are outlined in the *City of Bainbridge Island Illicit Discharge Detection and Elimination Manual* (IDDE manual). Beginning in 2020, the City began utilizing the Department of Ecology's WQWebIDDE reporting tool and database for recordkeeping, tracking of IDDE investigations, and any resulting necessary corrective actions and/or enforcement actions.

# S5.C.5.b – Informing People Of Hazards Associated With Illicit Discharges And Improper Disposal Of Waste

The City makes effort to inform staff, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste; the City does this through policies, codes, procedures, training programs, and education and outreach activities (for a complete list of those activities see SWMP Plan section <u>S5.C.2</u>).

#### S5.C.5.c – Illicit Discharges Ordinance

The <u>Illicit Discharge Detection and Elimination Ordinance No. 2008-14</u> (effective November 3, 2008) codified in <u>Bainbridge Island City Code</u> (<u>BIMC</u>) 15.22 – <u>Illicit Discharge Detection And Elimination</u> is the City's regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the MS4 to the maximum extent



allowable under state and federal law. A copy of the ordinance is always available to the public <u>online through</u> <u>code publishing</u> and upon request.

# S5.C.5.d – Program to Detection IDDE

To detect and identify non-stormwater discharges and illicit connections into the MS4, the City relies on trained City staff, the public, and those doing business in the city to recognize and report suspect, real, or potential issues of pollution. Therefore, the detection program is focused on educating for awareness, training, and providing technical assistance to City staff, the public, and businesses. Detection is achieved by people using the City's spill hotline (360-337-5777) or other means of reporting such as <a href="SeeClickFix">SeeClickFix</a>, and City Staff investigating reports and conducting field screening.





#### S5.C.5.d.i - Field Screening

MS4 field screening is performed by City Public Works Engineering and Operations & Maintenance (O&M) staff. Staff utilize field screening methodologies consistent with the methods recommended in the previous and current permit: <a href="Illicit Discharge Detection">Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004</a> and <a href="Illicit Connection and Illicit Discharge Field Screening">Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual, Herrera Environmental Consultants, 2013</a>. Field screening is conducted for IDDE investigations and with scheduled business source control inspections and inspections and maintenance activities for the operation and maintenance of catch basins and flow control and water quality treatment facilities.



For additional information regarding the operations, maintenance, and inspections of catch basins and of flow control and water quality treatment facilities or the source control program, refer to SWMP Plan section <u>S5.C.7</u> (Operations and Maintenance) and <u>S5.C.8</u> (Source Control Program).

Pursuant to the obligations of the permit, the City has an anticipated goal of conducting field screening of at least 12% of the MS4 in 2021.

#### S5.C.5.d.ii - Spill Reporting Hotline

To facilitate easier reporting of spills or other illicit discharges by the public, the City adopted the Kitsap County regional spill hotline number called Kitsap1: 360-337-5777. There is also an online version of Kitsap1 through SeeClickFix software. Reports to Kitsap1 by phone or online are promptly forwarded by Kitsap County to the City and are investigated, documented, and tracked by City Staff.

Kitsap1 is publicized by the County and City and helps to remind the public to be aware and report spills or other illicit discharges, which helps the City more effectively receive and react to real or potential water pollution issues.

In addition to Kitsap1, other spill reporting methods exist and are publicly advertised. The public may report spills directly to the City through the main telephone line (206-842-7366), Public Works Engineering telephone line (206-842-2016), or the City's <u>SeeClickFix</u> account. The public may also report spills through the Pacific spill hotline number: 1-800-OILS-911 (1-800-645-7911) which is commonly posted at docks and marinas. Reports to the Pacific spill hotline are routed to Department of Ecology (DOE), then DOE will route further if needed.



#### S5.C.5.d.iii - Training for Municipal Staff in IDDE Detection, Reporting, and Response

The City provides formal and informal training to City staff who, as part of their normal job responsibilities, might come into contact with or observe an illicit discharge and/or connection to the MS4, on the proper procedures for reporting and responding to the illicit discharge and/or connection. Staff also receive follow-up training as needed to address changes in procedures, techniques, requirements, or staffing. Training is delivered and documented pursuant to permit requirements and as described in SWMP Plan sections <u>S5.C5.f</u> and <u>S5.C.5.g</u>.

#### S5.C.5.e – Program to Address IDDE

To address illicit discharges, including spills and illicit connections, into the MS4, the City has developed and implemented training along with policy and procedures as outlined in the City of Bainbridge Island Illicit Discharge Detection and Elimination Manual (IDDE manual). The City manual is in the process of being updated to account for staffing, code and policy changes, and to ensure it adequately covers the following permit requirements:



- ✓ Procedures for the characterization and abatement of any potential public or environmental threat posed by any illicit discharges.
- ✓ Procedures for source tracing of an illicit discharge.
- ✓ Procedures for eliminating the illicit discharge.
- ✓ Minimum response timelines for addressing an illicit discharge.

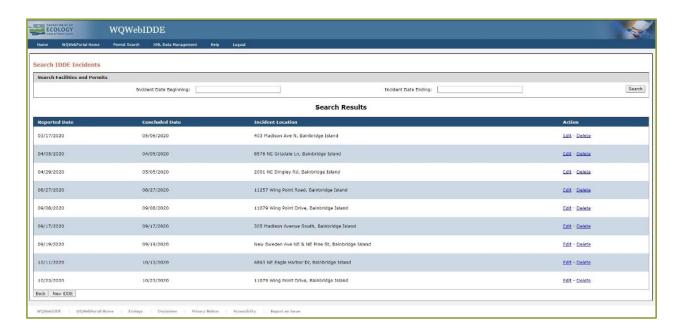
# S5.C.5.f - Staff Training

In addition to the training described in SWMP Plan section <u>S5.C5.d.iii</u>, the City provides formal and informal training for staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, to conduct these activities. Staff receive follow-up training as needed. Training is documented pursuant to permit requirements and SWMP Plan section <u>S5.C.5.g.</u>

# S5.C.5.g - Recordkeeping

The City tracks and maintains records for activities conducted to meet the requirements of permit section S5.C5, including staff trainings and IDDE investigations.

As of January 1, 2020, the City tracks and records IDDE reports, investigations and any resulting necessary corrective actions and/or enforcement actions in Department of Ecology's WQWebIDDE reporting database. Using WQWebIDDE will aid the City's effort to consistently track and maintain IDDE records and to meet new permit requirements for IDDE reporting data formatting and sharing.





# S5.C.6 – Controlling Runoff from New Development, Redevelopment, and Construction Sites

City of Bainbridge Island has an ongoing development review and inspection program to reduce pollutants in stormwater runoff to the MS4 from new development, redevelopment, and construction site activities. The program applies to all private and public development, including transportation projects. The program is organized to follow and address the minimum performance measures outlined in the permit:

- ➤ S5.C.6.a & b Enforceable mechanisms to limit pollutants in stormwater runoff
- S5.C.6.c Program for site plan review, inspection, and enforcement
- S5.6.d Notice of intent (NOIs)
- S5.6.e Staff training



#### S5.C.6.a & S5.C.6.b – Enforceable Mechanisms to Limit Pollutants in Stormwater Runoff

The City utilizes a combination of effective municipal and Washington State codes and adopted standards to establish local legal authority to administer and enforce requirements for controlling stormwater runoff from development, redevelopment, and construction site projects pursuant to permit requirements.



Per Bainbridge Island Municipal Code 15.20, Surface Water and Stormwater Management, the City has adopted the <u>Department of Ecology 2012</u> (as amended in 2014) Stormwater Management Manual for Western <u>Washington</u> which provides the standards criteria and requirements for the City to require all new development, redevelopment, and construction site projects to meet stormwater management standards that are substantively equivalent to the "Minimum Technical Requirements for New Development and Redevelopment" in <u>Appendix 1 of the permit</u>. These standards apply, at a minimum, to all new development and redevelopment projects that will or may impact surface water, groundwater, or stormwater, and provides equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1.

The following local requirements include limitations, and criteria that, when used to implement the minimum requirements in Appendix 1 of the permit, will protect water quality, reduce the discharge of pollutants to the maximum extent practicable and satisfy the State requirement under <a href="Chapter 90.48 RCW">Chapter 90.48 RCW</a> to apply all known, available and reasonable methods of prevention, control and treatment prior to discharge.

# ❖ Bainbridge Island Municipal Code 15.16 – Flood Damage Protection

The purpose of the chapter is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas.

# ❖ Bainbridge Island Municipal Code 15.19 – Site Assessment Review

The purpose of this chapter is to ensure that the provisions in <a href="Chapter 15.20">Chapter 15.20</a> Bainbridge Island Municipal Code (BIMC), including BIMC 15.20.010, are understood and effectively adhered to as part of the planning related to development or redevelopment of a site, and prior to the undertaking of clearing and grading that occurs in advance of construction activities on a site. All development and redevelopment within the thresholds established in Chapter 15.20 BIMC shall be subject to low impact development (LID) standards regarding surface water and stormwater in order to mimic natural hydrology and to limit pollution of the Puget Sound.





#### Bainbridge Island Municipal Code 15.20 – Surface Water and Stormwater Management

The provisions of this code chapter establish the minimum requirements that must be met to permit a property to be developed, redeveloped or proceed with construction activities within the city. The purpose of the chapter is to:

- A. Preserve and enhance the suitability of waters for contact recreation, fishing, and other beneficial uses;
- B. Minimize water quality degradation and sedimentation in streams, ponds, lakes, wetlands and other water bodies:
- C. Minimize the impact of increased runoff, erosion and sedimentation caused by land development and poor maintenance practices;
- D. Maintain and protect groundwater resources;
- E. Minimize adverse impacts from projects on ground and surface water quantities, locations and flow patterns;
- F. Decrease potential landslide, flood and erosion damage to public and private property;
- G. Establish site planning and construction practices that are consistent with natural topographical, vegetational and hydrological conditions and that limit the extent of land disturbing activities;
- H. Maintain and protect the city stormwater management infrastructure and downstream systems and properties.

This code chapter establishes the City's adoption of the <u>2012 Low Impact Development (LID) Technical</u>
<u>Manual for Puget Sound</u> and <u>Department of Ecology 2012 (as amended in 2014) Stormwater</u>
<u>Management Manual for Western Washington</u>, along with some standard modifications on project thresholds that exceed the manual requirements.

#### Bainbridge Island Municipal Code 15.21 – Stormwater Facilities Maintenance Program

The purpose of this chapter is to ensure maintenance of all stormwater facilities within the city and to set minimum standards for the inspection and maintenance of stormwater facilities. The provision of the chapter intends to:

- A. Provide for inspection and maintenance of stormwater facilities in the city to provide for effective and functional stormwater drainage systems.
- B. Authorize the city, through the public works department, to require that stormwater facilities be operated, maintained and repaired in conformance with this chapter.
- C. Establish the minimum level of compliance.
- D. Guide and advise all who conduct inspection and maintenance of stormwater facilities.



# ❖ Bainbridge Island Municipal Code 15.22 – Illicit Discharge Detection and Elimination

The purpose of this chapter is to regulate the city's municipal separate storm sewer system ("MS4" or "stormwater drainage system") regarding the introduction of pollutants that would adversely impact surface and ground water quality of the state of Washington in order to comply with requirements of the city's National Pollutant Discharge Elimination System ("NPDES") permit. The intent of this chapter is to:

- A. Control the introduction of pollutants to the storm water drainage system by any person and/or entity.
- B. Prohibit illicit connections and discharges to the storm water drainage system and receiving waters.
- C. Establish legal authority to carry out all inspections, surveillance and monitoring procedures necessary to ensure compliance with this chapter.

For more information on Illicit Discharge Detection and Elimination refer to SWMP Plan section <u>S5.C5</u>.

#### ❖ Bainbridge Island Municipal Code 16.20 – Critical Areas

This chapter recognizes and protects ecologically sensitive areas that provide beneficial functions including, but not limited to, water quality protection and enhancement, conveyance and attenuation of flood waters, groundwater recharge and discharge, and erosion control.

- ❖ BIMC 18.15 Development Standards and Guidelines & BIMC 18.18 Design Standards and Guidelines
  These chapters establish and reinforce standards that are protective of water quality.
- City of Bainbridge Island Design and Construction Standards

The design and construction standards further establish, and may exceed, the standards adopted from the <u>Department of Ecology 2012 (as amended in 2014) Stormwater Management Manual for Western Washington</u> and provides guidance on any deviation or exceedance of those adopted standards.

#### S5.C.6.c - Program for Site Plan Review, Inspection, and Enforcement

The City's program for public and private development, redevelopment and construction planning and permitting includes the following provisions to ensure all projects meet all local requirements and permit requirements.

- ✓ Review and approval of all stormwater site plans for proposed development activities.
- ✓ Inspection, prior to clearing and construction, of all known development sites that have a high potential for sediment transport based on definitions and requirements in <a href="Appendix 7">Appendix 7</a> of the permit, <a href="Determining Construction Site Sediment Damage Potential">Determining Construction Site Sediment Damage Potential</a>; and enforcement as necessary based on inspection.
- ✓ Inspection of all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls; and enforcement as necessary based on inspection.



- ✓ Regulate maintenance activities of all stormwater BMPs and infrastructure in new residential development projects every six months until construction is complete and the site is fully stabilized.
- ✓ Inspection of all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities, along with verification that a maintenance plan is completed, and enforcement as necessary based on inspection.
- ✓ Documented records of compliance inspections, and any enforcement actions, as part of this program; and achievement of at least 80% of scheduled compliance inspections during this NPDES permit period per permit minimum requirements.
- ✓ Procedures for record keeping of all the above-mentioned activities under the program.
- ✓ Enforcement strategy to respond to issues of non-compliance, including but not limited to:
  - Denial or revocation of engineering plan approvals and permits
  - Stop-work orders
  - Withholding of release of financial guarantees
  - Delay of final inspection
  - Delay or denial of final approval
  - Denial of occupancy certificates (temporary and permanent)
  - Notice to surety or other financial institution and/or legal action for forfeiture of financial guarantees
  - Code enforcement and/or other penalties as provided by law





#### S5.C.6.d - Notices of Intent

The City makes available the link to Department of Ecology's electronic <u>Construction Stormwater General Permit</u>
Notice of Intent (NOI) form for construction activity and, as applicable, a link to the electronic <u>Industrial</u>
<u>Stormwater General Permit</u> Notice of Intent (NOI) form for industrial activity to representatives of proposed development and redevelopment.

The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

# S5.C.6.e - Staff Training

City of Bainbridge Island staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training is provided as needed to address changes in procedures, techniques, or staffing. the City maintains records of the training provided and the staff trained.







# S5.C.7 – Operations and Maintenance

Proper operations and maintenance of stormwater systems and facilities is necessary to prevent and reduce stormwater impacts. The City's small municipal separate storm sewer system (MS4) is operated and maintained by the City and private stormwater systems are maintained by their owners.

The City continues to develop and implement an MS4 operations and maintenance program and a private stormwater facility inspection program to make sure public and private stormwater facilities meet maintenance standards. These programs address the following minimum performance measures outlined in the permit:

- S5.C.7.a Maintenance standards
- S5.C.7.b Maintenance of stormwater facilities Regulated by the City
- S5.C.7.c Maintenance of stormwater facilities Owned and Operated by the City
- ➤ S5.C.7.d Practices, policies, and procedures to reduce stormwater impacts
- S5.C.7.e Staff training
- S5.C.7.f Stormwater Pollution Prevention Plan
- > S5.C.7.g Maintain records



#### S5.C.7.a - Maintenance Standards

The City adopts and adheres to the maintenance standards for stormwater facilities as specified in the <u>Department of Ecology 2012</u> (as amended in 2014) Stormwater Management Manual for Western Washington (the manual); these standards establish criteria for identifying deficiencies and maintenance needs to help the City make sure facilities are operated and maintained for efficient conveyance, storage, and, in some cases, treatment of stormwater before it is discharged to surface or ground waters, to reduce localized flooding, decrease instances of erosion, and allow treatment processes to function properly.

The City regularly inspects public and private stormwater facilities and has developed and implemented inspection checklists for the various facilities based on the maintenance standards within the manual; for



facilities without maintenance standards within manual, the City will develop a maintenance standard and inspection checklist for those facilities. When during an inspection a deficiency or maintenance need is identified, the City makes every effort to ensure the facility is returned to standard within the following timelines:

- Within 6 months for catch basins.
- Within 1 year for typical maintenance of facilities, except catch basins.
- Within 2 years for maintenance that requires capital construction of less than \$25,000.

For any exceedance of the above timeline for maintenance, the City will document the circumstances and include that documentation with the Annual Report.



# S5.C.7.b - Maintenance of Stormwater Facilities Regulated by the City

The City's private stormwater facility inspection program works to verify long-term operation and maintenance of privately owned and operated permitted and permanent stormwater treatment and flow control BMPs/facilities, and especially those connected to the small municipal separate storm sewer system (MS4).

The private stormwater facility inspection program involves conducting annual inspections and enforcing required maintenance, or verifying annual inspection and maintenance by private parties, of private stormwater facilities to ensure maintenance plans, maintenance standards, and maintenance timelines are upheld.

Enforcement mechanisms and strategies are in place to address issues of non-compliance by private stormwater facility owners. The City's primary enforcement mechanisms to regulate private stormwater facilities are municipal codes <a href="BIMC 15.20">BIMC 15.20</a>, Surface Water and Stormwater Management, and <a href="BIMC 15.21">BIMC 15.21</a>, Stormwater <a href="Facilities Maintenance Program">Facilities Maintenance Program</a>. In part, these codes establish inspection and maintenance requirements, and where appropriate, establish necessity for, and adherence to, an operations and maintenance plan, for private stormwater facilities.

The City tracks and records all activities, as part of this program; and achieves at least 80% of all required inspections per permit minimum requirements.

# S5.C.7.c – Maintenance of Stormwater Facilities Owned and Operated by the City

The City works diligently to operate and maintain the MS4 to ensure a full-functioning and properly maintained public stormwater system that will prevent and/or reduce pollution from municipal properties and operations.

The City's MS4 operations and maintenance program includes annual inspections for all public stormwater treatment and flow control BMPs/facilities and biennial inspections of at least 95% of all known public catch basins and inlet facilities, per permit minimum requirements.



In addition to regular scheduled inspections, staff also conduct spot check inspections of potentially damaged public stormwater flow control and treatment facilities after, and sometimes during, major storm events (10-year 24-hour event). Spot checks may be performed for lesser storm events at the discretion of the Public Works Director. If spot checks indicate widespread damage or maintenance needs, other stormwater flow control and treatment facilities in the area that may be affected will also be inspected and maintained as needed.

When deficiencies or maintenance issues are identified during any inspection, staff address those needs within the maintenance standards timelines (S5.C7.a).



#### S5.C.7.d - Practices, Policies, and Procedures to Reduce Stormwater Impacts

The City makes all known and reasonable efforts through policy, procedure, and practices to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, including, but not limited to: streets, parking lots, road rights-of-ways, buildings, open space, maintenance yards, and stormwater facilities.

Staff are trained to follow stormwater Best Management Practices (BMPs) as provided in the <u>2012 Stormwater</u> <u>Management Manual for Western Washington</u>, as <u>Amended in December 2014</u> while performing operations and maintenance (O&M) activities. These BMPs are referenced in The City of Bainbridge Island O&M Manual. The O&M manual will be updated to ensure it most adequately addresses all the following O&M activities pursuant to the permit and permit timeline.

- Pipe cleaning
- Cleaning culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning



- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control
- Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts
- Sediment and erosion control
- Landscape maintenance and vegetation disposal
- Trash and pet waste management
- Building exterior cleaning and maintenance

# S5.C.7.e - Staff Training

The City continues to develop and implement an on-going training program for employees whose primary construction, operations, or maintenance job-functions may impact stormwater quality. Awareness and practical trainings help inform and prepare staff with skills and knowledge in operations and maintenance standards, inspection procedures, relevant Stormwater Pollution Prevention Plans (SWPPPs), selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Training and follow-up trainings are provided regularly or as needed to address changes in staffing, procedures, techniques, or requirements. Training efforts are tracked and documented.

#### S5.C.7.f - Stormwater Pollution Prevention Plan

All heavy equipment maintenance and storage yards, and material storage facilities owned and operated by the City, the Public Works Operations & Maintenance Facility and Decant Facility have Stormwater Pollution Prevention Plans (SWPPP) documented and implemented. These SWPPPs will be reviewed and updated as needed to ensure effectiveness and compliance with permit requirements.

#### S5.C.7.g - Maintain Records

Records of all the operations and maintenance activities outlined in this section are tracked and maintained as required by the permit.



# S5.C.8 - Source Control Program for Existing Development

Source control program for existing development is a new section and requirement of the permit, whereas the City shall implement such a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4.

The City already has a limited source control program that will be adapted for, or adopted into, a new source control program to addresses the new requirements of the permit pursuant to the permit timeline.

# S7 – COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

Per Permit Section 7, Compliance With Total Maximum Daily Load Requirements, and Permit Appendix 2, Bainbridge Island, as part of Watershed Resource Inventory Area (WRIA) 15, is an affected jurisdiction that must follow the restrictions and requirements of the WRIA 15 - Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL). Thus, the City must carry out certain actions to help reduce and eliminate sources of Fecal Coliform bacteria, and does so through the following activities:

- Staff screen the MS4 for sources of Fecal Coliform bacteria during illicit discharge detection and elimination activities and operations and maintenance activities. All areas of the known MS4 that discharge to the TMDL area are screened at an average rate of 12% each year over the permit period in concordance with <a href="S5.C5.d.i">S5.C5.d.i</a>.
- Pet waste stations to promote and facilitate pet waste pick up and disposal are installed all around the island to help prevent Fecal Coliform bacteria release into the environment and TMDL area. Public Works Staff regularly inspect and maintain pet waste stations installed at City owned and operated lands adjacent to stream and marine shorelines within the TMDL area and other areas of the island where people commonly walk their pets. In addition, the City is partner in a larger regional effort, "Mutt Mitt Program", with West Sound Stormwater Outreach Group and Kitsap County, to purchase and promote public access pet waste stations that are sponsored and maintained by volunteer private property owners. There are currently 51 pet waste stations available for public use around the island, but there are many more than this because the total does not include all other privately owned and maintained stations located around the island.





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# **S8 – MONITORING AND ASSESSMENT**

The City complies with Permit Section 8, Monitoring and Assessment, by opting into and paying funds into a Permittee collective for Status and Trends Monitoring and Stormwater Management Program (SWMP) Effectiveness and Source Identification Studies. The City utilizes the data and results of all the monitoring efforts and studies to inform stormwater management decisions. The City is also a volunteer participant in some of the monitoring efforts and studies. For more information on this, visit the <a href="Stormwater Action Monitoring">Stormwater Action Monitoring (SAM)</a> DOE <a href="Website">website</a>. In exceedance of the permit, the City also does some monitoring of its own through the <a href="Water Quality">Water Quality</a> and Flow Monitoring Program (WQFMP).

#### **FINAL SUMMARY**

This Stormwater Management Program Plan outlines the many ways that the City of Bainbridge Island complies with NPDES regulations to uphold the Clean Water Act. Yet, the SWMP provides only a cursory illustration of how the City works to reduce stormwater impacts and protect water resources and water quality for island residents, businesses, and visitors.

As islanders, encompassed by water and reliant on a sole source aquifer system for drinking water, water plays a vital role in the quality of life on Bainbridge Island. This is reflected in the culture of the community and exemplified in the <a href="City Comprehensive Plan">City Comprehensive Plan</a> goals and policies that prioritize water resources, environment, and utilities. The City strives to educate staff and the general public on water resource and stormwater management so we all may make more informed and thoughtful decisions in our work, lives, and daily activities that are protective of water quality.



Collectively we all uphold the Clean Water Act, because everyone plays a role in helping or hindering water resources and water quality. We benefit ourselves and future generations when we always consider and respect our water resources, especially when reducing impacts from stormwater runoff.

